

<b>Powered Industrial Trucks</b>	<b>Manual Document Page Issue Date</b>	<b>ESHQ TFC-ESHQ-S_IS-C-07, REV A-10 1 of 10 August 13, 2020</b>
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Ownership matrix	<b>RPP-27195</b>
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## **1.0 PURPOSE AND SCOPE**

(7.1.3)

This procedure describes the safety requirements, safe work practices, and operator roles and responsibilities for the inspection and operation of Powered Industrial Trucks (PITs).

This procedure applies to Washington River Protection Solutions, LLC (WRPS) and their subcontractor organizations that operate and utilize PITs to perform material handling and storage activities for WRPS.

This procedure supplements but does not replace DOE-RL-92-36, “Hanford Site Hoisting and Rigging Manual.”

Controls on lift planning utilizing PITs are found in TFC-ENG-FACSup-C-25.

Additional Controls for PIT operations in the tank farms are found in TFC-OPS-OPER-C-10.

This procedure is used in combination with the safety inspection, work control, and pre-job briefing processes, which are governed by their own procedures listed in Section 7.0.

## **2.0 IMPLEMENTATION**

This procedure is effective on the date shown in the header.

## **3.0 RESPONSIBILITIES**

(7.1.1, 7.1.2)

### **3.1 Safety Professionals**

- Assist line organizations in addressing issues related to implementation and compliance with this procedure.
- Attend initial forklift operational safety training (course 044470 or equivalent) to assist in the performance of PIT operation oversight. No refresher training is required for Safety Professionals after completion of the initial training.
- Perform safety inspection on all newly purchased and rented PITs. The safety inspection shall be documented in the Safety and Health Field Surveillance database.

### **3.2 Management/Supervision**

Ensures personnel involved with PIT operations comply with the provisions of this procedure and DOE-RL-92-36.

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Ensures personnel who operate forklifts and forklift attachments are trained and qualified.

In accordance with TFC-ENG-FACSUP-C-25, notifies the Shift Office, Hoisting & Rigging Engineering SME, and Hoisting & Rigging Safety SME of any abnormal material handling event, prior to any critique, fact-finding meeting or incident investigation whenever possible.

### **3.3 Training Department**

Assists Management and Buyer's Technical Representatives (BTRs) in determining acceptable training equivalencies as described in DOE-RL-92-36.

### **3.4 Field Work Supervisor**

- Ensures pre-use inspections are completed by operators before PIT operations begin. If a PIT is to be operated more than one shift in any given day, a pre-use inspection must be performed prior to use on each shift.
- Understands the overall job plan in order to coordinate PIT operations with other work activities in a safe manner.
- Ensures PIT operations are performed safely and within the scope of the current work as required.
- Approves safety controls for PIT operations in accordance with Section 4.0.
- Attends initial forklift operation safety training (course 044470 or equivalent) to assist in supervising and providing oversight of PIT pre-use inspections and operation. No refresher training is required for Field Work Supervisors (FWSs) after the initial training.
- Ensures spotters are designated for safe conduct of operations whenever working conditions warrant.

### **3.5 PIT Operator**

- Operates the PIT in a safe, responsible manner.
- PIT operator completes an OJE card for each PIT attachment utilized; a qualified forklift OJE evaluator documents the evaluation on the attachment specific OJE card. The documented OJE will be maintained as part of the employee's training records.
- Identifies hazards and establish necessary controls for safe PIT operations. Obtains FWS concurrence for safety controls used.
- Designates spotter(s) whenever determined necessary for safe conduct of operations.

For example:

- Operating in an area where the potential exists for multiple vehicle and/or pedestrian traffic

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- Operating near energized power lines (qualified electrical spotter required)
- Operating in conditions where the operator's vision is obstructed by load and/or other obstacles
- Assistance is needed to properly position forks under irregular load
- Assistance is needed to properly manipulate load on transport vehicle
- Operating on or near uneven surfaces.
- Communicates roles/expectations to spotter(s), and ensure their understanding prior to commencing operations.
- Ensures continuous communication with spotter(s). If communication is lost, safely stop the operation until appropriate communications are re-established. If using two-way radios, hands-free type is preferred. Monitors radio for spotter communication and sends message only when the PIT is stopped.
- Performs a 360 degree walk around of the PIT:
  - Before starting the PIT at the beginning of each shift
  - Before starting the PIT after leaving it unattended.
- Performs pre-use inspection of PIT before operating PIT. Evidence shall consist of a laminated or magnetic checklist/operator aid filled out with grease pencil or dry erase marker, and must contain the current date, shift, and operator initials. This is not intended to be a documented record of the inspection, but shall be completed prior to performing work, and available upon request when equipment is in use.
- Is aware of other work activities in the vicinity of PIT operations (e.g., pedestrian traffic, other vehicles and/or equipment, work activities by other subcontractors) and ensures proper safeguards are in place.

### 3.6 Spotter

The spotter shall NOT be assigned additional duties or engage in any other activity while acting as a spotter. If while acting as spotter it becomes necessary to leave the work area or otherwise divert attention away from PIT operations, the PIT operator shall be notified and operations suspended. Operations may resume only after the spotter is again fully engaged.

- Wears a high visibility vest. The FWS has authority to waive this requirement based on local conditions, such as operating in a secure area where no other workers are present.
- Ensures understanding of spotter responsibilities and expectations as established by the PIT operator. If a question arises, safely stop the operation until clarification is obtained.

- Maintains continuous communication with the PIT operator during operations. This may be accomplished through visual contact, hand signals, direct voice communication, or use of two-way radios.
- Keeps the PIT operator informed regarding the status of other persons, equipment, or vehicular traffic within the PIT operating area, and ensure a safe operating distance is maintained.
- Executes a STOP signal when necessary to prevent the PIT from:
  - Compromising safety of personnel working directly with PIT operations or in the immediate area of the operations.
  - Breaching distance limitations to power and communication lines.
  - Coming into contact with buildings, structures, equipment, other vehicles, or established barriers.

#### 4.0 PROCEDURE

See Figure 1 for general process flowchart.

#### 4.1 PIT Operating Requirements (7.1.1, 7.1.2, 7.1.3)

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| FWS/PIT Operator | <ol style="list-style-type: none"> <li>1. Evaluate the worksite, and determine safe work controls.</li> <li>2. Perform a walkdown of the PIT operation area to assess potential hazards.</li> </ol>  |
| FWS              | <ol style="list-style-type: none"> <li>3. For routine forklift evolutions, observe operations to ensure the area is safe and compliant with requirements.</li> </ol>   |
| FWS/PIT Operator | <ol style="list-style-type: none"> <li>4. Determine the best means to separate pedestrians and other vehicles in the surrounding work area.</li> <li>5. Establish controls appropriate for work conditions. The following are examples of appropriate controls:           <ul style="list-style-type: none"> <li>• Barricading off the PIT operations area with cones/ropes/warning tape/chain and consider use of signage for large areas</li> <li>• Conducting operations in a fenced area with the gates closed and signs indicating PIT operations in progress</li> <li>• Using a spotter to assist the PIT operator</li> <li>• Using a spotter and barricades.</li> </ul> </li> </ol> |

6. Use a spotter:

- When the pit operator's view is obstructed
- When performing critical tasks or special lifts
- When overhead electrical hazards are present.

PIT Operator

7. When using a spotter, perform the following:

NOTE: The operator and the spotter share responsibility to maintain communication and ensure safe handling of loads. Unless an unsafe situation could be created, it is expected that the operator complies with the signals of the spotter at all times.

- a. Review operations and communication requirements.
- b. Use a radio when working in a high noise environment or other conditions where visual or verbal communication could be impaired (e.g., tight operating areas that impede constant visual contact).

NOTE: For work performed at night, all vests shall possess reflective properties.

- c. Ensure the spotter is wearing a high visibility vest.

NOTE: Unless specified otherwise by the Job Hazard Analysis (JHA), the minimum safe-approach distance is normally equivalent to that of the total load height. For example, if the load was 4 feet high and was elevated 6 feet, the spotter's minimum safe approach distance from the load would be 10 feet (4 ft. + 6 ft. = 10 ft.).

- d. Ensure the spotter maintains a safe-approach distance from the load whenever the load is being elevated, lowered, or the PIT is in motion.

FWS

8. Conduct a pre-job briefing prior to any PIT travel on major Hanford Site roadways, and address methods for safe transit, possible construction interference, high-speed traffic, and pedestrian areas.

FWS/PIT Operator

9. For travel on routine routes, periodically perform spot checks.

PIT Operator

10. Comply with traffic regulations when operating a PIT on site roadways.

NOTE: Minor exceptions may be approved by the FWS based on location (e.g., within a tank farm complex).

FWS/PIT Operator

11. Ensure PITs are unloaded when transitioning on site roadways.

NOTE: Although considered appropriate for roadway transit, mirrors are generally discouraged for material handling purposes.

12. If a PIT has mirrors added to it, ensure consent from the manufacturer was obtained.

## **4.2 Attachments, Modifications, and Free Rigging from Tines**

Attachments and modifications will follow the requirements of DOE-RL-92-36.

Free rigging from forklift tines is not allowed to be used by WRPS or subcontractor personnel.

Forklifts will not be used for lifting personnel.

## **4.3 PIT Field Operations**

### **4.3.1 Pre-Use Inspection** (7.1.2, 7.1.3)

NOTE: DOE-RL-92-36 contains typical pre-use inspection checklists developed from OSHA requirements. Individual work groups may provide their own checklist provided it meets the minimum requirements.

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| Operator | <ol style="list-style-type: none"><li>1. Conduct a pre-use inspection once per shift.</li><li>2. Ensure periodic maintenance inspections are current via the inspection sticker or other documentation, or obtain verbal confirmation from the equipment custodian.</li></ol> |
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### **4.3.2 Operating PIT Unloaded/Traveling** (7.1.1, 7.1.2, 7.1.3)

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|----------|---|
| Operator | <ol style="list-style-type: none"><li>1. Operate the PIT in a manner to compensate for terrain (e.g., uneven surfaces, slope of ground), weather conditions (e.g., ice and snow), and traffic or pedestrian congestion.</li></ol> |
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NOTE 1: The operator may use an escort vehicle or spotter when they deem necessary for safe operations.

NOTE 2: The operator and FWS should determine the best route to avoid heavily congested areas.

NOTE 3: Parking closer than 8 feet from the center of railroad tracks is prohibited.

2. When traveling:
  - a. Observe all traffic regulations, including posted speed limits.
  - b. Maintain a safe following distance (approximately three PIT lengths).
  - c. Yield the right of way to pedestrians or emergency vehicles.
  - d. Avoid heavy pedestrian traffic areas whenever possible.

- e. Cross railroad tracks diagonally whenever possible.
- f. Tilt fork tines slightly upward to avoid contact with tracks.

NOTE: DOE-RL-92-36 contains typical pre-use inspection checklists developed from OSHA requirements. Individual work groups may provide their own checklist provided it meets the minimum requirements.

- g. Under all travel conditions, operate the PIT at a speed that will permit it to be brought to a stop in a safe manner. All starts and stops shall be easy and gradual to prevent loads from shifting.

#### **4.3.3 Loading/Unloading/Operating the PIT**

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| Operator | <ul style="list-style-type: none"><li>1. Perform loading, unloading, and operations in accordance with DOE-RL-92-36.<ul style="list-style-type: none"><li>a. If transporting more than one drum, palletize and secure them to the backrest with a ratchet strap.</li><li>b. If transporting a single drum, palletize and secure it to the backrest with a ratchet strap, or a specific attachment designed for lifting a drum with a forklift.</li></ul></li></ul> |
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#### **4.3.4 Parking the PIT**

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| Operator | <ul style="list-style-type: none"><li>1. Park the PIT in a safe area without blocking exits, walkways, electrical panels, or fire lanes.</li></ul> |
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NOTE: A PIT is considered to be unattended when the operator is 25 feet or more away from the PIT, which must remain in his/her view or whenever the operator leaves the PIT and it is not in his/her view.

- 2. When a PIT is left unattended, fully lower the load engaging means.
  - a. Neutralize the controls.
  - b. Shut off the power.
  - c. Set the brakes.
  - d. Block/chock the wheels if the truck is parked on an incline.

3. When the operator of an industrial truck is dismounted and within 25 feet of the truck still in his/her view, fully lower the load engaging means.
  - a. Neutralize the controls.
  - b. Set the brakes to prevent movement.

## 5.0 DEFINITIONS

Powered industrial truck (PIT). A high-lift, self-loading truck, equipped with load carriage and forks for transporting and tiering loads. This consists of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustible engines.

Spotter. For the purpose of this procedure, the spotter is a designated person(s) whose sole responsibility is to assist the PIT operator in assuring personnel and equipment safety during PIT operations. Spotters are responsible for providing warning or stop signals prior to violation of proximity restrictions or pre-determined distance limitations regarding personnel, vehicles, equipment, structures, overhead obstructions, power and communication lines, ground penetrations or other potentially hazardous conditions.

## 6.0 RECORDS

The following records are generated during the performance of this procedure:

- Powered Industrial Truck Safety Inspection The Safety Professional that conducts the inspection shall document his/her findings in the Safety and Health Field Surveillance database.
- Equipment Attachment – On-The-Job Evaluation card (356599, 356606, 356539, or other attachment specific OJE card). This document shall be submitted to the WRPS training department becoming part of the employees training records.

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM\_DC-C-02.

## 7.0 SOURCES

### 7.1 Requirements

- 7.1.1 29 CFR 1910, "Occupational Safety and Health Standards," Subpart N, "Materials, Handling and Storage."
- 7.1.2 29 CFR 1910.178, "Powered Industrial Trucks."
- 7.1.3 DOE-RL-92-36, "Hanford Site Hoisting and Rigging Manual."



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## 7.2 References

- 7.2.1 A-6007-579, “Powered Industrial Truck Safety Inspection.”
- 7.2.2 TFC-ENG-FACSup-C-25, “Hoisting and Rigging, Load Handling, and Transport.”
- 7.2.3 TFC-OPS-MAINT-C-01, “Tank Operations Contractor Work Control.”
- 7.2.4 TFC-OPS-MAINT-C-02, “Pre-Job Briefings and Post-Job Reviews.”
- 7.2.5 TFC-OPS-OPER-C-10, “Vehicle and Dome Load Control in Tank Farm Facilities.”

**Figure 1. Powered Industrial Truck Operation.**

